

Australia's mothers and babies 2013— in brief

Appendixes A to C

Australian Institute of Health and Welfare

Canberra

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Appendix A: Perinatal National Minimum Data Set items

Table A1: Perinatal NMDS 2012–2013 data items

Data element name	METeOR identifier
Birth event—birth method, code N	295349
Birth event—birth plurality, code N	269994
Birth event—birth presentation, code N	299992
Birth event—labour onset type, code N	269942
Birth event—setting of birth (actual), code N	269937
Birth event—state/territory of birth, code N	270151
Birth—Apgar score (at 5 minutes), code NN	289360
Birth—birth order, code N	269992
Birth—birth status, code N	269949
Birth—birth weight, total grams NNNN	269938
Episode of admitted patient care—separation date, DDMMYYYY	270025
Establishment—organisation identifier (Australian), NNX[X]NNNNN	269973
Female (pregnant)—number of cigarettes smoked (per day after 20 weeks of pregnancy), number N[NN]	365445
Female (pregnant)—tobacco smoking indicator (after 20 weeks of pregnancy), yes/no code N	365417
Female (pregnant)—tobacco smoking indicator (first 20 weeks of pregnancy), yes/no code N	365404
Person—area of usual residence, statistical area level 2 (SA2) code (ASGS 2011) N(9)	469909
Person—country of birth, code (SACC 2011) NNNN	459973
Person—date of birth, DDMMYYYY	287007
Person—Indigenous status, code N	291036
Person—person identifier, XXXXXX[X(14)]	290046
Person—sex, code N	287316
Pregnancy—estimated duration (at the first visit for antenatal care), completed weeks N[N]	379597
Product of conception—gestational age, completed weeks N[N]	298105

Note: Implementation start date 1 July 2012; implementation end date 30 June 2013.

Source: <<http://meteor.aihw.gov.au/content/index.phtml/itemId/461787>>.

Table A2: Perinatal NMDS 2013–2014 data items

Data element name	METeOR identifier
Birth event—anaesthesia administered indicator, yes/no code N	495466
Birth event—analgesia administered indicator, yes/no code N	495381
Birth event—birth method, code N	295349
Birth event—birth plurality, code N	269994
Birth event—birth presentation, code N	299992
Birth event—labour onset type, code N	269942
Birth event—setting of birth (actual), code N	269937
Birth event—state/territory of birth, code N	270151
Birth event—type of anaesthesia administered, code N[N]	422383
Birth event—type of analgesia administered, code N[N]	471867
Birth—Apgar score (at 5 minutes), code NN	289360
Birth—birth order, code N	269992
Birth—birth status, code N	269949
Birth—birth weight, total grams NNNN	269938
Episode of admitted patient care—separation date, DDMMYYYY	270025
Establishment—organisation identifier (Australian), NNX[X]NNNNN	269973
Female (mother)—postpartum perineal status, code N[N]	423659
Female (pregnant)—number of cigarettes smoked (per day after 20 weeks of pregnancy), number N[NN]	365445
Female (pregnant)—tobacco smoking indicator (after 20 weeks of pregnancy), yes/no code N	365417
Female (pregnant)—tobacco smoking indicator (first 20 weeks of pregnancy), yes/no code N	365404
Female (pregnant)—number of antenatal care visits, total N[N]	423828
Person—area of usual residence, statistical area level 2 (SA2) code (ASGS 2011) N(9)	469909
Person—country of birth, code (SACC 2011) NNNN	459973
Person—date of birth, DDMMYYYY	287007
Person—Indigenous status, code N	291036
Person—person identifier, XXXXXX[X(14)]	290046
Person—sex, code N	287316
Pregnancy—estimated duration (at the first visit for antenatal care), completed weeks N[N]	379597
Product of conception—gestational age, completed weeks N[N]	298105

Note: Implementation start date 1 July 2013; implementation end date 30 June 2014.

Source: <<http://meteor.aihw.gov.au/content/index.phtml/itemId/489433>>.

Appendix B: State and territory perinatal data collections

New South Wales

Mr Tim Harrold
Principal Analyst, Health Surveillance
Epidemiology and Biostatistics
Centre for Epidemiology and Evidence
NSW Ministry of Health
Level 7/73 Miller Street
North Sydney NSW 2060

Phone: (02) 9391 9142
Fax: (02) 9391 9232
Email: tharr@moh.health.nsw.gov.au
Website: www.health.nsw.gov.au

Latest report:

Centre for Epidemiology and Evidence 2015. New South Wales mothers and babies 2013. Sydney: NSW Ministry of Health.

Victoria

Ms Vickie Veitch
Manager
Clinical Councils Unit
Department of Health and Human Services
GPO Box 4003
Melbourne Vic 3001

Phone: (03) 9906 2697
Fax: (03) 9096 2700
Email: perinatal.data@health.vic.gov.au
Website: www.health.vic.gov.au/perinatal

Latest report:

Consultative Council on Obstetric and Paediatric Mortality and Morbidity 2014. Victoria's mothers and babies: Victoria's maternal, perinatal, child and adolescent mortality 2010/2011. Melbourne: Victorian Department of Health.

Queensland

Ms Sue Cornes
Executive Director
Health Statistics Unit
Strategy, Policy and Planning Division
Queensland Health
Queensland Government
GPO Box 48
Brisbane Qld 4001

Phone: (07) 3234 0921
Fax: (07) 3234 0564
Email: sue.cornes@health.qld.gov.au
Website: <www.health.qld.gov.au/hsu>

Latest report:

Queensland Health (Health Statistics Unit) 2014. Perinatal statistics Queensland 2013.
Brisbane: Queensland Health.

Western Australia

Ms Maureen Hutchinson
Manager
Maternal and Child Health Unit
Data Collection & Analysis – Statutory and Non-Admitted Branch
Data Integrity Directorate
Purchasing & System Performance Division
Department of Health, Western Australia
189 Royal Street
East Perth WA 6004

Phone: (08) 9222 2417
Fax: (08) 9222 4408
Email: maureen.hutchinson@health.wa.gov.au
Website: <www.health.wa.gov.au/healthdata/statewide/maternal.cfm>

Latest reports:

Gee V 2013. Perinatal, infant and maternal mortality in Western Australia, 2006–2010.
Perth: Western Australian Department of Health.

Hutchinson M 2015. Western Australia's mothers and babies, 2012: 30th annual report of the Western Australian Midwives' Notification System. Perth: Department of Health, Western Australian.

South Australia

Dr Wendy Scheil
Head, Pregnancy Outcome Unit
SA Health
PO Box 6, Rundle Mall
Adelaide SA 5000

Phone: (08) 8226 6382

Fax: (08) 8226 6291

Email: pregnancy.stats@health.sa.gov.au

Website: <www.sahealth.sa.gov.au/pregnancyoutcomes>

Latest reports:

Maternal, Perinatal and Infant Mortality Committee 2014. Maternal, perinatal and infant mortality in South Australia 2012. Adelaide: SA Health.

Scheil W, Scott J, Sage L, Fisher M, Thomson J, Jolly K & Kennare R 2014. Pregnancy outcome in South Australia 2012. Adelaide: SA Health (Pregnancy Outcome Unit).

Tasmania

Mr Peter Mansfield
Team Leader
Health Information Unit
Department of Health and Human Services
Level 5, 24 Davey Street
Hobart Tas 7000

Phone: (03) 6166 1012

Fax: (03) 6233 7167

Email: peter.mansfield@dhhs.tas.gov.au

Website: <www.dhhs.tas.gov.au>

Latest report:

Tasmania Council of Obstetric and Paediatric Mortality and Morbidity 2015. Annual report 2013. Hobart: Tasmanian Government Department of Health and Human Services.

Australian Capital Territory

Dr Hai Phung
Senior Manager
Epidemiology Section, Health Improvement Branch
ACT Health
GPO Box 825
Canberra ACT 2601

Phone: (02) 6205 2609
Fax: (02) 6244 4138
Email: perinataldata@act.gov.au
Website: <www.health.act.gov.au>

Latest report:

ACT Health (Epidemiology Branch) 2011. Maternal and perinatal health in the ACT, 1999–2008. Canberra: ACT Health.

Northern Territory

Ms Leanne O’Neil
Perinatal Business Analyst
Health Gains Planning Branch
Department of Health
PO Box 40596
Casuarina NT 0811

Phone: (08) 8922 7673
Email: leanne.o'neil@nt.gov.au
Website: <www.health.nt.gov.au>

Latest report:

Hall J, Case A & O’Neil L 2015. Northern Territory Midwives’ Collection: Mothers and babies 2013. Darwin: Northern Territory Department of Health.

Appendix C: Data quality, methods and interpretation

Data quality, presentation and interpretation issues

Detailed information on completeness, accuracy and other aspects of data quality for the NPDC is in the data quality statement as a separate download at <http://meteor.aihw.gov.au/content/index.phtml/itemId/624809>.

This report presents perinatal data that can largely be compared with data in *Australia's mothers and babies 2012* (Hilder et al. 2014). Tabulated data in this report are based on births in each state and territory in 2013 that meet the criteria for inclusion in the Perinatal NMDS. Due to data editing and subsequent updates of state and territory databases, the numbers may differ slightly from those in reports published by the states and territories.

Unless otherwise stated, the data in this report and detailed tables relate to the state or territory where births occurred in 2013 rather than to the state or territory of usual residence of the mother. Where data are not available from all states and territories in the required format or data have not been published for other reasons, this is indicated in the footnotes of tables and figures.

Due to rounding, percentage totals in this report may not add up to 100 and subtotals may not sum to the percentages for the categories. Some percentages in the tables appear as '—' (nil or rounded to zero) where numbers are small.

Terminology

The terms 'mothers' or 'women who gave birth' have been used when referring to maternal characteristics, whereas 'births' refers to babies.

Quality of data for reporting Indigenous status

Indigenous status is a measure of whether a person identifies as being of Aboriginal and/or Torres Strait Islander origin. Indigenous status of the mother has been a mandatory data item for the Perinatal NMDS since its inception in 1997, but applying the data item to the baby was introduced to the NMDS for collection for the first time in the 2012–13 reference year.

For 2013, data on the baby's Indigenous status was provided by all states and territories. This item, when used in conjunction with the mother's Indigenous status, is a better baseline measure of health for all Indigenous children. However, the outcomes of babies of Indigenous mothers remain a key data resource for assessing antenatal care in pregnancy and other interventions before or during pregnancy, aimed at improving the health of mothers and babies.

Unless otherwise stated, data for babies are based on the Indigenous status of the mother.

Australian Capital Territory births include mothers resident in New South Wales

The Australian Capital Territory data contain a relatively high proportion of New South Wales residents who gave birth in the Australian Capital Territory. The proportion of mothers who gave birth in the Australian Capital Territory who were residents elsewhere was 14.2% in 2013.

When interpreting the data, it is important to note that these births to non-residents may include a disproportionate number of high-risk and multi-fetal pregnancies associated with poorer perinatal outcomes. This is because women with high-risk pregnancies may be more likely to be transferred from smaller centres in New South Wales (that do not have the facilities to manage such births safely) to the Australian Capital Territory to give birth.

Therefore, percentages or rates such as those for pre-term births and perinatal deaths may be inflated for births that occur in the Australian Capital Territory. Reporting by state or territory of usual residence of the mother helps to address this issue.

Methods

Crude rates

A crude rate is defined as the number of events over a specified period (for example, a year) divided by the total population exposed to the event.

Age-specific rates

An age-specific rate is defined as the number of events for a specified age group over a specified period (for example, a year) divided by the total population exposed to the event in that age group.

Age-standardised rates

Age-standardised rates enable comparisons to be made between populations that have different age structures. Direct standardisation, in which the age-specific rates are multiplied by a constant population, was used in this report. This effectively removes the influence of the age structure on the summary rate. The report states where age-standardised rates have been used.

All age-standardised rates in this report have used the June 2001 Australian female estimated resident population as the standard population.

$$SR = \frac{\sum(r_i P_i)}{\sum P_i}$$

Where:

SR is the age-standardised rate for the population being studied

r_i is the age-group specific rate for age group i in the population being studied

P_i is the population of age group i in the standard population

Rate ratio

Rate ratios are calculated by dividing the proportion of the study population (for example, Indigenous Australians) with a particular characteristic by the proportion of the standard population (for example, non-Indigenous Australians) with the same characteristic.

A rate ratio of 1 indicates that the prevalence of the characteristic is the same in the study and standard populations. Rate ratios of greater than 1 indicate higher prevalence in the study population; rate ratios of less than 1 indicate higher prevalence in the standard population.

Geography

Data presented by remoteness, socioeconomic status and in maps are based on the usual residence of the mother. In 2013, the usual residence of the mother is based on Statistical Area Level 2 (SA2) of the Australian Statistical Geography Standard Edition 2011 for all states and territories except for the Australian Capital Territory. For the Australian Capital Territory, data by remoteness and socioeconomic status are based on Statistical Local Area of the Australian Standard Geographical Classification (ASGC) Edition 2011 and map data are based on postcode.

Remoteness

This report uses the Australian Statistical Geography Standard Remoteness Structure which groups geographic areas into six classes of Remoteness Area based on their relative access to services using the Accessibility/Remoteness Index of Australia (ARIA). The six classes are: *Major cities, Inner regional, Outer regional, Remote, Very remote* and *Migratory* (see the *Australian Statistical Geography Standard (ASGS): Volume 5 – Remoteness Structure, July 2011* (ABS 2013a)).

Socioeconomic status

The Socio-Economic Index for Areas (SEIFA) are summary measures of socioeconomic status (SES) that summarise a range of socioeconomic variables associated with disadvantage. Socioeconomic disadvantage is typically associated with low income, high unemployment and low levels of education.

The SEIFA index used in this report is the 2011 SEIFA Index of Relative Socioeconomic Disadvantage (IRSD) developed by the Australian Bureau of Statistics (ABS) for use at Statistical Area Level 2 (all states and territories except the Australian Capital Territory) and Statistical Local Area (Australian Capital Territory only).

Since the IRSD only summarises variables that indicate disadvantage, a low score indicates that an area has many low-income families, many people with little training and many people working in unskilled occupations; hence, this area may be considered as disadvantaged relative to other areas. A high score implies that the area has few families with low incomes and few people with little or no training and working in unskilled occupations. These areas with high index scores may be considered less disadvantaged relative to other areas. It is important to understand that a high score reflects a relative lack of disadvantage rather than advantage, and that the IRSD relates to the average disadvantage of all people living in a geographic area and cannot be presumed to apply to all individuals living within the area.

Population-based Australian cut-offs for SEIFA quintiles have been used in this report. This method ranks the SEIFA scores for a particular geography (for example, Statistical Area

Level 2) from lowest to highest, and the geographical areas are divided into 5 groups, such that approximately 20% of the population are in each group.

The most disadvantaged group is referred to as the *Lowest socioeconomic status (SES) areas* and the least disadvantaged group is referred to as the *Highest SES areas*.

See the *Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia, 2011* (ABS 2013b) for further information on SEIFA.

Maps

Maps on antenatal visits in the first trimester, smoking in the first 20 weeks of pregnancy and low birthweight are presented by Primary Health Network (PHN), based on mother's usual residence.

PHNs have been established by the Australian Government Department of Health to increase the efficiency and effectiveness of medical services and improve the coordination of care for patients.

Perinatal data at Statistical Area Level 2 (SA2), or by postcode where SA2 was not available, were linked to 2015 PHNs using Australian Bureau of Statistics correspondence files.

The relevant proportion for each PHN was then calculated, and categories were developed based on the median, interquartile ranges and 10th and 90th percentiles for the proportions at the PHN level. The categories were then adjusted to account for natural breaks in the distribution of the data and for easier interpretation (for example, a range with a maximum of 52.1% of women receiving antenatal care in the first trimester would be revised to a maximum of 50%).

Small numbers

Cell values of less than 5 in the detailed tables have not been published, in line with guidelines for protecting the privacy of individuals (SIMC 2007). Exceptions to this are small numbers in 'Other' and 'Not stated' categories. The cell with small numbers and at least one other cell in the same row and column are suppressed to prevent back calculation. Where '<5' (value of less than 5) or 'n.p.' (not published) has been used to protect confidentiality, the suppressed numbers are included in the totals.